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TABLE 4-continued

	Crystallization Solvent	Crystal Form
8	Ethanol	NA
9	Cyclohexane	NA
10	Acetonitrile	Form-II Crystal of the Invention + Form-III Crystal of the Invention
11	1,2-Dichloroethane	NA
12	Fluorobenzene	Form-II Crystal of the Invention + Form-III Crystal of the Invention
13	1,2-Dimethoxyethane	Form-II Crystal of the Invention + Form-III Crystal of the Invention
14	Methylcyclohexane	NA
15	Nitromethane	Form-II Crystal of the Invention + Form-III Crystal of the Invention
16	1,4-Dioxane	NA
17	3,3-Dimethyl-2-butanone	Form-II Crystal of the Invention + Form-III Crystal of the Invention
18	Isobutanol	NA
19	Toluene	Form-II Crystal of the Invention + Form-III Crystal of the Invention
20	Diethylcarbonate	Form-III Crystal of the Invention
21	n-Butyl acetate	Form-III Crystal of the Invention
22	Chlorobenzene	Form-II Crystal of the Invention + Form-III Crystal of the Invention
23	Ethylbenzene	NA
24	p-Xylene	NA
25	Isoamyl acetate	Form-III Crystal of the Invention
26	n-Amyl acetate	Form-III Crystal of the Invention
27	Methyl-phenyl-ether	Form-II Crystal of the invention + Form-III Crystal of the invention
28	Cyclohexanone	NA
29	bis(2-Methoxy ethyl)ether	Form-III Crystal of the invention
30	1,3,5-Trimethylbenzene	Amorphous
31	4-Hydroxy-4-methyl-2-pentanone	Form-II Crystal of the invention + Form-III Crystal of the invention
32	2,6-Dimethyl-4-heptanone	Form-III Crystal of the invention

NA: Solid was not precipitated.

TABLE 5

	Crystallization Solvent	Crystal Form
1	Chloroform	NA
2	Tetrahydrofuran	Form-II Crystal of the Invention
3	Cyclohexane	
3	Ethyl formate	Form-II Crystal of the Invention + Form-III Crystal of the invention
4	Water	NA
4	Methanol	NA
5	Water	
5	Acetonitrile	Form-II Crystal of the Invention + Form-III Crystal of the Invention
6	1,2-Dimethoxyethane	Form-II Crystal of the Invention + Form-III Crystal of the Invention
7	Water	Form-II Crystal of the Invention
7	Ethanol	Form-II Crystal of the Invention
8	Water	
8	Cyclohexane	Form-II Crystal of the Invention
9	1,4-Dioxane	
9	2-Propanol	Form-II Crystal of the Invention
10	Water	NA
10	Cyclohexanone	NA
11	Tetrahydrofuran	
11	1-Propanol	Form-II Crystal of the Invention
12	Water	
12	1,4-Dioxane	Form-II Crystal of the Invention
13	Water	
13	2-Butanol	Form-II Crystal of the Invention
14	Water	
14	Cyclohexanone	Form-II Crystal of the Invention + Form-III Crystal of the Invention
15	Cyclohexane	Form-III Crystal of the Invention
15	1-Butanol	Form-II Crystal of the Invention
	Water	

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TABLE 5-continued

	Crystallization Solvent	Crystal Form
5	16 Cyclohexanone 1,4-Dioxane	Form-II Crystal of the Invention + Form-III Crystal of the Invention

NA: Solid was not precipitated.

(2) Further investigations were executed using the following method for those conditions under which crystals were not precipitated (see Tables 4 and 5) and conditions similar to them. The solvents used in the further experiments were selected in consideration of toxicity, solubility of compound A and availability for industrial use.

15 An amount of solvent less than that of the test in the above-mentioned (1) was added to compound A, and the mixture was heated to 75° C. with stirring. After dissolving compound A, the mixture was stirred at 65° C. for 5 to 8 hours. The mixture was cooled down to 20° C. over 9 hours. The precipitated crystal was collected by filtration and dried at 70° C. under reduced pressure, whereby a crystal was obtained. The results are shown in Table 6.

In the investigation by mixed solvents, each solvent was mixed and used in an equal amount.

TABLE 6

	Crystallization Solvent	Crystal Form
1	tert-Butyl methyl ether	NA
2	Isopropyl ether	NA
30	3 Cyclohexane	NA
4	Ethanol	Form-I Crystal of the Invention
5	2-Propanol	Form-I Crystal of the Invention + Form-III Crystal of the Invention
6	Ethylbenzene	Form-III Crystal of the Invention
7	Methanol	Form-I Crystal of the Invention + Form-III Crystal of the Invention
35	8 Water	Form-III Crystal of the Invention
	Cyclohexanone	NA
	Tetrahydrofuran	

NA: Solid was not precipitated.

40 From the results of the above-mentioned (1) and (2), it was concluded that Form-II crystal of the invention and Form-III crystal of the invention can be obtained from various solvents.

On the other hand, crystals which contain Form-I crystal of the invention could be obtained only from alcohol solvents, and highly pure Form-I crystal of the invention could be obtained from ethanol.

The invention claimed is:

1. A crystal of 2-{4-[N-(5,6-diphenylpyrazin-2-yl)-N-isopropylamino]butyloxy}-N-(methylsulfonyl)acetamide, showing diffraction peaks in its X-ray powder diffraction spectrum at least at the following angles of diffraction 2θ: 9.4 degrees, 9.8 degrees, 17.2 degrees and 19.4 degrees, wherein the X-ray powder diffraction diagram is obtained by using Cu Kα radiation.

2. A pharmaceutical composition comprising the crystal of claim 1 as an active ingredient.

3. A method for producing the crystal of claim 1, comprising the steps of

dissolving 2-{4-[N-(5,6-diphenylpyrazin-2-yl)-N-isopropylamino]butyloxy}-N-(methylsulfonyl)acetamide in an alcoholic solvent or a mixed solvent of an alcoholic solvent and a ketone solvent while heating, and subsequently crystallizing 2-{4-[N-(5,6-diphenylpyrazin-2-yl)-N-isopropylamino]butyloxy}-N-(methylsulfonyl)acetamide by cooling the solution gradually.

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